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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/532,740	03/22/2000	Sukekazu Aratani	503.38382X00	8245
20457	7590	05/03/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			ABDULSELAM, ABBAS I	
			ART UNIT	PAPER NUMBER
			2674	17

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/532,740

Applicant(s)

ARATANI ET AL.

Examiner

Abbas I Abdulsalam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 01/20/04 have been fully considered but they are not persuasive.

Applicant argues that the cited references Hirai et al. (USPN 6122021) and Brittell (USPN 5749646) alone or in combination do not teach "a control unit for controlling ON an OFF states of a light source for each of plural regions into which said lighting device is divided in accordance with a display response of said liquid crystal unit." However, as shown in the art rejection below, Brittell discloses the use of plural number of light sources utilized with respect to light generating units (40a 40b). Brittell also teaches that the light generating units (40a, 40b) emit two randomly changing sets of resultant light as the individual bulbs within them flash "on" or "off", and discloses a schematic diagram of an analog electrical circuit (Fig. 26) with switch, S to control the functioning of a single unit multiple color producing light bulb. See col. 6, lines 24-31 and col. 13, lines 50-61. Furthermore, Brittell explains as shown in the abstract, that the light generating units (40a, 40b) are incorporated inside a lamp assembly capable of emitting different colors of light at different times onto a plural number of distinct areas on a lamp or object some distance from the lamp. Therefore, it would have been obvious that the circuit with a multifunction switch, S shown in Fig. 26 controls the functioning of the light bulbs (including ON & OFF), within plural number of distinct areas on a lamp, and hence is functionally equivalent to the desired "control unit". Regarding "control unit" functioning "in accordance with a display response of said liquid crystal display unit", Hirai teaches the use of a liquid

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crystal display element with respect to a projection light source, and it would have been obvious to utilize Brittell's circuit with a multifunctioning switching inside Hirai' display system.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 8-9 are rejected under 35 U.S.C. 103 as being unpatentable over Hirai et al. (USPN 6122021) in view of Brittell (USPN 5749646).

Regarding claims 1-2, Hirai teaches a liquid crystal display apparatus, the apparatus including a light source (11) and liquid crystal display element (12). See Fig 2. Hirai discloses the liquid crystal display element (1) comprising substrates (2, 5), a picture element electrode (3), an active element (4) and a liquid crystal solidified matrix composite material (7) interposed between the substrates (col. 24, lines 67-68, col. 25, lines 1-10 & Fig 1.). Hirai also teaches the liquid crystal display element in a transparent state, and shows the application of electric field to the electrode-substrate configuration. (col. 7, lines 39-43, col. 16, lines 52-55, lines 64-67, col.17, lines 1-7). Furthermore, Hirai illustrates the use of active matrix substrate with respect to multiple active elements that are connected to each of the picture element electrodes (col. 6, lines 62-67). However, Hirai does not disclose a lighting device that includes plurality of light sources. Brittell on the other hand discloses the use of plural number of light sources utilized with respect to light generating units (40a 40b). Brittell teaches one model of lamp that is used to

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form moving images, and shows that discrete images (129) are being cast with respect to motion effect members (128) and an object some distance away from the lamp. See col. 12, lines 24-44, Fig. 23A and Fig. 23B.

Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify Hirai's display system to adapt Brittell's use of plurality of light sources through light generating units (40a, 40b). One would have been motivated in view of the suggestion in Brittell that multiple light sources as configured in Fig. 23(A-B) equivalently satisfy the desired plurality of light sources. The use of multiple light sources helps the illumination of display devices as taught by Brittell. (See col. 4, lines 41-52).

Regarding claim 2, in addition to what has been discussed above, Brittell discloses a control circuit with switch, S performing several functions including the intensity regulation of any light produced. See col. 13, lines 47-49 and Fig. 25. It would have been obvious that the control circuit and the switch, S satisfy the desired control unit and alight adjustment unit respectively.

Regarding claim 3, Brittell discloses a circuit, which includes a fuse, F and a dimmer Rheostat, Re to regulate the intensity and the rate pulsation of any light, produced. See col. 13, lines 47-49. In addition, Brittell discloses a wide variety of electrical control switching used in connection with lamps including the use of any voltage rating. It would have been obvious to set a zero voltage.

Regarding claim 4, Brittell teaches the use of a variety of light sources including light emitting diode (LED). See col. 4, lines 10-17.

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Regarding claim 5, Brittell teaches a lamp with a translucent member on its front including cup-shaped light blocking partition (50). See col. 6, line 60 and Fig. 3a.

Regarding claims 8-9, Hirai teaches a display system driven in a 2-state display, and the response associated in several levels of the display. See col. 13, lines 59-67 and col. 14, lines 1-9.

Claims 6-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al. (USPN 6122021) in view of Brittell (USPN 5749646) and Bibayan (USPN 5572648).

Regarding claim 6, Hirai and Brittell have been discussed above. However both of them do not teach a determining circuit determining whether the image signal to be displayed is for a static image or a dynamic image. Bibayan on the other hand discloses a static tool palette display (20), dynamic tool palette display (22) and dynamic tool palette applet (24), which examines and determines whether to modify its tool display based on the context. See col. 4, lines 66-67, col. 5, lines 1-32 and Fig.(4-5).

Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify Hirai's liquid crystal display system to incorporate Bibayan's use of static and dynamic tool palettes. One would have been motivated in view of the suggestion in Bibayan that the dynamic palette applet (24) can be equivalently used to obtain the desired static vs. dynamic image determination. The use of dynamic tool palette applet helps modify a dynamic display system as taught by Bibayan.

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Regarding claim 7, Brittell discloses a switch (84) allowing the user of a lamp to control over several options including positioning a switch in a way that more than one of the light sources are simultaneously illuminated. See col. 12, lines 54-64.

Regarding claim 10, Bibayan teaches dynamic tool palette display (22) including a window application with a hardware function scanner (6). See col. 4, lines 25-33.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abduselam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand delivered responses should be brought to Crystal Park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.

Abbas Abdulsalam

Examiner

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April 15, 2004


XIAO WU
PRIMARY EXAMINER